

88269

Determination of the Thermal Expansion
Coefficient of Bodies by Means of a
Nonsteady Method

S/170/61/004/001/007/020
B019/B056

readings of the body lengths, where $A = \alpha_0 l_0$ and $B = \beta_0 l_0$. For calculating
A and B by the method of least squares, $A = A_0 + x$ and $B = y/100$ is put,
where A_0 is the approximately known value of A. This method is briefly
described and it is found that it is somewhat too complicated in practice.
A simplified method is suggested, in which one proceeds from the relations
 $\Delta l_0 / \Delta t_0 = A + B \Delta t_0$ and $\Delta l_1 / \Delta t_1 = A + B \Delta t_1$. From both equations one
obtains: $B = (\Delta l_0 / \Delta t_0 - \Delta l_1 / \Delta t_1) / (\Delta t_0 - \Delta t_1)$ (12), $A = \Delta l_0 / \Delta t_0 - B \Delta t_0$.
Thus, α_0 and β_0 can then be calculated by means of already given relations.
Finally, the accuracy of this method is discussed.

ASSOCIATION: Tekhnologicheskii institut im. Lensovet, g. Leningrad
(Technological Institute imeni Lensovet, Leningrad)

SUBMITTED: July 12, 1960

Card 2/2

MEDVEDEV, N. N.

Temperature hysteresis. Teplo- i massoper. 1:205-215 '62.
(MIRA 16:1)

1. Leningradskiy tekhnologicheskij institut im. Lensoveta.

(Hysteresis) (Temperature—Measurement)

VOL'KENSHTEYN, V.S.; GAL'BRAYKH, I.Ye.; GEL'MAN, A.A.; MEDVEDEV, N.N.;
NIKIFOROVA, T.F.; RAVDEL', A.A.

Development and application of the method of express-control
of moisture in crude rubber mixtures under production conditions.
Kauch.i rez. 21 no.5:55-57 My '62. (MIRA 15:5)

1. Zavod "Krasnyy treugol'nik" i Leningradskiy tekhnologicheskii
institut imeni Lensovetu.
(Rubber—Moisture)

MEDVEDEV, N.N.; PILIKOVSKIY, M.Ya.

Replacing card stripping flats by rollers. Obm.tekh.opyt. [MLP]
no.16:21-23 '56. (MIRA 11:11)
(Carding machines)

LUS, Ya.Ya.; MEDVEDEV, N.N.; PROKOF'YEVA-BELGCVSKAYA, A.A.;
LYUBIMOVA-LEPINA, V.F.

In memory of Tenis Karlovich Lepin, 1895-1964. Biul. MOIP.
Otd. biol. 70 no.2:153-155 Mr-Ap '65.

(MIRA 18:5)

MEDVEDEV, N. P.

GOLITSYN, S.V.; ~~MEDVEDEV, N. P.~~

Daphne Julia K.-Pol. Biul.Glav.bot. sada no.17:31-34 '54.
(MIRA 8:3)

1. Botanicheskiy sad Voronezhskogo gosudarstvennogo universiteta.
(Mezereon)

GOLITSYN, S.V.; MEDVEDEV, N.P.

Twenty years' work in the introduction of trees at the Voronezh
University Botanical Garden. Bot.zhur. 43 no.12:1778-1780
D '58. (MIRA 11:12)

1. Voronezhskiy gosudarstvennyy universitet.
(Voronezh—Arboretums)

MEDVEDEV, N.P.

Aneurysms of the humeral artery. Khirurgiya no.6:56-58 Je '53. (MLBA 6:8)

1. Propedevticheskaya khirurgicheskaya klinika Kazanskogo meditsinskogo
instituta. (Aneurysms)

MEDVEDEV, N.P.

Arterio-venous aneurysm in the amputation stump of the hip.
Khirurgiia no.11:79-80 N '53. (MIRA 6:12)

Propedevticheskoy *Stump*
1. Iz propedevticheskoy khirurgicheskoy kliniki i kafedry obshchey
khirurgii Kazanskogo meditsinskogo instituta.
(Aneurysms) (Amputation stump)

MEDVEDEV, N.P.

Activity of catalase in blood and pus during regeneration of
wounds. Khirurgiia no.6:20-25 Je '55. (MLBA&10)

1. Iz kafedry obshchey khirurgii Kazanskogo meditsinskogo
instituta.(zav.-prof. V.N.Shubin)

(CATALASE, metabolism,

in pyogenic wods)

(WOUNDS AND INJURIES,

pyogenic, catalase metab. in)

MEDEDEV, N.P.

Cytology of suppurating wounds. Khirurgia 32 no.7:55-59 J1 '56.
(MLR 9:11)

1. Iz kafedry obshchey khirurgii (zav. - prof. V.N.Shubin)
Kazanskogo meditsinskogo instituta.

(WOUNDS AND INJURIES

suppurating wds., cytol.)

(INFECTIONS

same)

MEDVEDEV, N.P

Secretion of staphylococcal antigens by the kidneys during
suppurative and inflammatory processes in surgical patients. Zhur.
mikrobiol. epid. i immun 28 no.2:40-44 F '57 (MLRA 10:4)

1. Iz kafedry obshchey khirurgii Kazanskogo meditsinskogo instituta.
(MICROCOCCAL INFECTIONS, immunol.

secretion of staphylococcal antigens by kidneys)

(KIDNEYS, physiol.

secretion of staphylococcal antigens by micrococcal
infect.)

(ANTIGENS

staphylococcal, secretion by kidneys during micrococcal
infect.)

MEDVEDEV, N.P., kand.med.nauk

Effect of penicillin therapy on the activity of catalase in blood in some surgical patients [with summary in English]. Khirurgiya 33 no.9:61-64 S '57. (MIRA 11:4)

1. Iz kafedry obshchey khirurgii (zav. - prof. V.N.Shubin) Kazanskogo meditsinskogo instituta .

(CATALASE, in blood

eff. of penicillin in surg. patients with suppurative processes)

(PENICILLIN, eff.

on catalase in blood of surg. patients with suppurative processes)

MEDVEDEV, N. P.: Doc Med Sci (diss) -- "Antigens of staphylococcus and their clinical significance". Kazan', 1958. 20 pp (Kazakh State Med Inst), 200 copies (KL, No 5, 1959, 155)

MEDVEDEV, N.P., dotsent

Extensive fibrolipomatosis of the retroperitoneal cellular
tissue. Khirurgiia 36 no.8:109-110 &g '60. (MIRA 13:11)

1. Iz kafedry obshchey khirurgii (zav. - prof. V.N. Shubin) Kazan-
skogo meditsinskogo instituta.
(RETROPERITONEAL SPACE—TUMORS)

MEDVEDEV, N.P., doktor med.nauk

Hypernephroid cancer of the adrenal gland of large dimensions.

Kaz. med. zhur. no. 2:69-70 Mr-Apr '61.

(MIRA 14:4)

1. Kafedra obshchey khirurgii (zav. - prof. V.N. Shubin) Kazanskogo meditsinskogo instituta.

(ADRENAL GLANDS--CANCER)

VLADIMIROVA, L.F.; MEDVEDEV, N.P.

PH of suppurative wound secretions in various forms of bandaging.
Kaz. med. zhur. no.5:48-49 S.-O '61. (MIRA 15:3)

1. Kafedra obshchey khirurgii (zav. -prof. V.N. Shubin)
Kazanskogo meditsinskogo instituta i kafedra biologicheskoy
khimii (zav. - prof. M.F. Merezhinskiy) Minskogo meditsinskogo
instituta.

(BANDAGES AND BANDAGING)
(WOUNDS)

MEDVEDEV, N.P.

Cholinesterase of the blood in surgical operations. *Khirurgiia*
37 no.2:106-108 P '61. (MIRA 14:1)

1. Iz kafedry obshchey khirurgii (zav. - prof. V.N. Shubin)
Kazanskogo meditsinskogo instituta.
(CHOLINESTERASE)

MEDVEDEV, N. P.

Blood catalase in surgical operations. Khirurgiia no.4:137-138
'62. (MIRA 15:6)

(CATALASE) (SURGERY, OPERATIVE)

MEDVEDEV, N.P.

Antitoxic function of the liver in pyoinflammatory processes
in patients treated with penicillin. ~~Ex. 164~~ no.1:74-75
Ja-F'61 (MIRA 16:11)

1. Kafedra obshchey khirurgii Kazanskogo meditsinskogo instituta (zav.-prof. V.N. Shubin) i 1-ye khirurgicheskoye otdeleniye Respublikanskoy klinicheskoy bol'nitsy (glavvrach- Sh.V. Bikchurin).

*

MEDVEDEV, N.P., prof. (Kazan'); SHULUTKO, L.I. prof. (Kazan').

Second All-Russian Congress of Surgeons. Kaz.med. zhur. No.2:
93-97 Mr-Apr'63 (MIRA 16:11)

*-

MEDVEDEV, N.P., prof.

Practical experience in the treatment of knife wounds of the heart.
Kaz. med. zhur. no.6:42-43 N-D '63.

(MIRA 17:10)

1. Kafedra gospiatal'noy khirurgii No.2 (zav. - prof. N.P. Medvedev)
Kazanskogo meditsinskogo instituta.

MEDVEDEV, N.P.; KARAMYSEV, V.V.; MUSTAFIN, F.I.; EVRANOVA, G.B.

Problems in the histochemistry and physiology of defects of the heart. Nauch. trudy Kaz. gos. med. inst. 14:479-481 '64.

(MIRA 18:9)

1. Kafedra gospiatal'noy khirurgii No.2 (zav. - prof. N.P. Medvedev) Kazanskogo meditsinskogo instituta.

S/140/61/000/004/006/013
C111/C222

AUTHOR: Medvedev, N. V.

TITLE: On the problem of the vortex point and the eddy point

PERIODICAL: Izvestiya vysshikh uchebnykh zavedeniy. Matematika,
no. 4, 1961, 57-65

TEXT: The author considers the equation

$$\frac{dy}{dx} = \frac{P(x,y) + f(x,y)}{Q(x,y) + g(x,y)}, \quad (1)$$

where 1) $P(x,y)$ and $Q(x,y)$ are polynomials vanishing in $x=y=0$; 2) there exists a positive definite polynomial $F(x,y)$ so that $F'_x = -P(x,y)$,

$F'_y = Q(x,y)$, where if x is of m -th and y is of n -th dimension then

all terms of $F(x,y)$ are of k -th dimension; 3) $f(x,y)$, $g(x,y)$ are analytic functions in $x=y=0$; the terms of their Taylor developments are not lower as of $(k-m)$ -th or $(k-n)$ -th dimension. The author introduces the polar coordinates $x = \rho^m \varphi(\theta)$, $y = \rho^n \psi(\theta)$, where $\varphi(\theta)$

and $\psi(\theta)$ are continuous solutions of the system

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On the problem of the vortex . . .

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C111/C222

$$\frac{dx}{d\theta} = Q(x,y), \quad \frac{dy}{d\theta} = P(x,y)$$

with the initial conditions $x(0) = c$, $y(0) = 0$, where c is determined by $kF(c,0) = 1$. Then the equation (1) reads

$$\frac{d\theta}{d\theta} = \frac{\theta^m P\theta' - \theta^n Q\psi' + \theta^m f\varphi' - \theta^n g\psi'}{\theta^{k-1} - m\theta^{m-1} f\varphi + n\theta^{n-1} g\psi}, \quad (4)$$

where it is assumed that the sum of all coefficients of θ^{k-1} in the denominator of (4) is positive so that (4) is representable in the form

$$\frac{d\theta}{d\theta} = \sum_{k=1}^{\infty} a_k(\theta) \theta^k = R(\theta, \theta), \quad (6)$$

where $a_k(\theta)$ are continuous periodic functions with the period ω . Let

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On the problem of the vortex . . .

S/140/61/000/004/006/013

C111/C222

$$R_1 = R, R_{k+1} = \frac{\partial R_k}{\partial \xi} e^{\int_0^\theta R_k^1 d\theta} \quad (k = 1, 2, 3, \dots)$$

The author proves the theorem 1: In order that all integral curves of (6) are closed in the neighborhood of the coordinate origin, i. e. in order that $x = y = 0$ is a vortex point it is necessary and sufficient that

$$\int_0^\omega R_{k+1} d\theta \Big|_{\xi=0} = 0 \quad (k = 1, 2, 3, \dots) \quad (12)$$

is satisfied.

For the equation

$$\frac{dy}{dx} = \frac{-x^5 + Px^2y + Qxy^2 + My^3}{y + Ax^3 + Bx^2y + Cxy^2 + Dy^3} \quad (18)$$

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On the problem of the vortex . . . S/140/61/000/004/006/013
C111/C222
the author proves theorem 2: In order that (18) has a vortex point it
is necessary and sufficient that either $A = P = M = C = 0$ or
 $P + 3A = Q + B = 3M + C = 0$.

The author mentions V. A. Chechik, and M. J. Al'mukhamedov. There
are 3 Soviet-bloc references.

ASSOCIATION: Kazanskiy gosudarstvennyy pedagogicheskiy institut
(Kazan' State Pedagogical Institute)

SUBMITTED: March 19, 1959

Card 4/4

MEDVEDEV, N.V.

Some problems of the qualitative investigation of differential
equations in a plane. Izv. vys. ucheb. zav.; mat. no.6:82-88 '61.
(MIR 15:3)

1. Kazanskiy gosudarstvennyy pedagogicheskiy institut.
(Differential equations)

MEDVEDEV, Nikolay Vasil'yevich; KNYAZEVA, L., red.; MUKHIN, Yu., tekhn.
red.

[Psychic phenomena in the light of science] Psikhicheskie iavleniia
v svete nauki. Moskva, Gos. izd-vo polit. lit-ry, 1958. 68 p.
(Psychical research) (MIRA 11:5)

MEDY DEV, N. Y.

The Boring Aggregate ZIF-300," Razv'eika i Otkrytiya, No. 1, pp. 1-25, 1954

SO: W-31-27, Sep 55

Medvedev, Nikolay Vasil'yevich

TURCHUK, Anatoliy Artem'yevich; TITOV, Petr Savvat'yevich; YEGOROV, Mikhail Sergeyevich; ORLOV, Lev Nikolayevich; ~~MEDVEDEV, Nikolay Vasil'yevich~~; BUBNOV, Ye.S., redaktor; SERGEYENVA, N.A., redaktor; GUROVA, O.A., tekhnicheskiiy redaktor

[ZIF-300 core drilling unit] Burovoi agregat ZIF-300. Moskva,
Gos.nauchno-tekhn.izd-vo lit-ry po geol.i okhrane nedr, 1955. 197 p.
[Microfilm] (Boring machinery) (MLRA 9:3)

Medvedev, N.V.

AUTHORS: Bubnov, Ye.S., Medvedev, N.V. 132-58-4-13/17

TITLE: The Drilling Unit V-35 for Sinking Geological Test Wells
to a Depth of 3,000 m (Burovoy agregat V-35 dlya prokhodki
geologorazvedochnykh skvazhin glubinoy 3,000 m)

PERIODICAL: Razvedka i Okhrana Nedr, 1958, Nr 4, pp 51-56 (USSR)

ABSTRACT: This is a detailed description of the drilling unit V-35
constructed by the Swedish firm Krelus.

ASSOCIATION: (VIMS) (Ministerstvo Geologii i Okhrany Nedr SSSR)
(VIMS) (USSR Ministry of Geology and Conservation of Mineral
Resources.

AVAILABLE: Library of Congress

Card 1/1 1. Drilling machines

Medvedev N.V.

132-58-4-14/17

AUTHORS: Vozdvizhenskiy, B.I., Shamshev, F.A., Meyerson, Ye.G., Bubnov
Ye.S., Medvedev, N.V.

TITLE: On the question of the Selection of a Motor for Test Well
Boring (K voprosu o vybore zaboynogo dvigatelya dlya raz-
vedochnogo bureniya)

PERIODICAL: Razvedka i Okhrana Nedr, Nr 4, 1958, pp 57-59 (USSR)

ABSTRACT: This article is written in support of the point of view
expressed by N.G. Zhilkin in his booklet "The Motor for
Test Well-Boring," which was criticized by M.T. Gusman and
A.A. Minin in the Periodical "Neftyanoye khozyaystvo", 1957,
Nr 12, pp 66-68. The author of the booklet suggested the
use of the electric perforator on tubes and the critics
prefer the turbo-perforator of a small diameter or the
electric perforator on ropes.

AVAILABLE: Library of Congress

Card 1/1 1. Drilling machines--Equipment

TURCHUK, A.A.; MEDVEDEV, N.V.; ORLOV, L.N.; TITOV, P.S.; BUBNOV, Ye.S.,
red.; FEDOROVA, L.N., red.izd-va; BYKOVA, V.V., tekhn.red.

[ZIF-650 A boring machine unit] Burovoi agregat ZIF-650 A.
Moskva, Gos.nauchno-tekhn.izd-vo lit-ry po geologii i okhrane
nedr, 1959. 133 p. (MIRA 13:4)
(Boring machinery)

BUBNOV, Ye.S.; MEDVEDEV, N.V.

New Swedish deep test drilling rigs. Razved. i okh. nedr
26 no.2:55-62 Feb. '60. (MIRA 14:6)

1. Vsesoyuznyy nauchno-issledovatel'skiy institut mineral'nogo
syr'ya. (for Bubnov). 2. Ministerstvo geologii i okhrany nedr
SSSR (for Medvedev).
(Sweden--Boring machinery)

1. 18112-63 EWT(d)/FCC(w)/BDS AFFTC/IJP(G) s/0110/63/000/004/0099/0103
 ACCESSION NR: AF3005614

AUTHOR: Medvedev, N. V. (Omsk)

TITLE: Limit cycles 16

SOURCE: IVUZ. Matematika, no. 4, 1963, 99-103

TOPIC TAGS: differential equation, small parameter, limit cycle

ABSTRACT: The author considers limit cycles of

$$\begin{aligned} \frac{dx}{dt} &= P(x, y) + \mu M(x, y, \mu), \\ \frac{dy}{dt} &= Q(x, y) + \mu N(x, y, \mu). \end{aligned} \quad (1)$$

- 1) $P(x, y)$ and $Q(x, y)$ are polynomials tending to zero at the point $x = y = 0$;
- 2) there exists a positive definite polynomial $F(x, y)$ such that $F'_x = -Q(x, y)$, $F'_y = P(x, y)$; also, if x is m -dimensional and y is n -dimensional, then all the terms of $F(x, y)$ are only k -dimensional (m , n and k are natural numbers);
- 3) $M(x, y, \mu)$ and

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ACCESSION NR: AP3005614

$N(x, y, \mu)$ are analytic functions at the point $x = y = \mu = 0$ for which all terms in the Taylor expansion in powers of x and y are of respective dimensions not less than $k-n$ and $k-m$. It is easy to show that for $\mu = 0$, system (1) allows a family of periodic solutions $x = c^n \varphi(tc^{k-m-n})$, $y = c^m \psi(tc^{k-m-n})$ depending on one parameter $c > 0$, where φ and ψ are periodic functions, with period ω , which satisfy the conditions:

$$\varphi' = P(\varphi, \psi), \quad \psi' = Q(\varphi, \psi), \quad kF(\varphi, \psi) = 1.$$

Consequently this system can have limit cycles under some restrictions imposed on the right parts. Using the transformation

$$\begin{aligned} x &= r^n \varphi(\theta), \\ y &= r^m \psi(\theta). \end{aligned}$$

(2)

system (1) is replaced by one equation

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$$\frac{d\varphi}{d\theta} = \frac{\mu^{\nu} N(x, y, \mu) \varphi' - \mu^{\nu} M(x, y, \mu) \varphi}{\rho^{k-1} - \mu^{\nu} \rho^{k-1} N(x, y, \mu) \varphi + \mu^{\nu} \rho^{k-1} M(x, y, \mu) \varphi} \quad (3)$$

where x and y should be replaced by their expressions in (2). The right part of (3) for any interval $0 \leq \rho \leq \rho^*$ (ρ^* is an arbitrary constant positive number) for sufficiently small μ is represented in the form of a series

$$\frac{d\varphi}{d\theta} = \mu^{\nu} \sum_{k=1}^{\infty} a_k(\theta, \mu) \rho^k, \quad (4)$$

where ν is a natural number and $a_k(\theta, \mu)$ ($k = 1, 2, 3, \dots$) are continuous periodic functions of θ with period ω and analytic μ ; also there exists at least one k such that $a_k(\theta, 0) \neq 0$. Theorem 1. If $R = R_0 > 0$ is a root of the simple equation

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ACCESSION NR: AP3005614

$$\sum_{i=1}^n R^i \int_0^1 \ddot{u}_i(0,0) d\theta = 0. \quad (5)$$

then system (1) in a sufficiently small circular neighborhood of the curve $kF(x,y) = R_0^k$ for sufficiently small μ has a limit cycle which is also unique. Orig. art. has: 15 formulas.

ASSOCIATION: none

SUBMITTED: 12Dec60

DATE ACQ: 27Aug63

ENCL: 00

SUB CODE: MM

NO_REF SOV: 002

OTHER: 000

Card 4/4

OPARIN, A.I., akademik; STUDITSKIY, A.N., prof.; NAUMOV, N.P.,
 prof.; KOVAL'SKIY, V.V.; YUROVA, I.L., dots.; PLATONOV, G.V.,
 prof.; KAGANOV, V.M.; FURMAN, A.Ye., dots.; MEDVEDEV,
 N.V., prof.; YAKIMOV, V.P., kand. biol. nauk;
 ZHUKOV-VEREZHNIKOV, N.N.; BONDARENKO, P.P., prof.;
 Mayskiy, I.N., prof.; TRIBULEV, G.P., dots.;
 TSAREGORODTSEV, G.I., dots.; DOBROKHVALOV, V.P., kand.
 biol. nauk; YAZDOVSKIY, V.I., prof.; VIKTOROVA, V., red.;
 CHEREMNYKH, I., mlad. red.; ULANOVA, L., tekhn.red.

[Studies on the dialectic of living nature] Ocherk dia-
 lektiki zhivoi prirody. Moskva, Sotsekgiz, 1963. 527 p.
 (MIRA 16:12)

1. Chlen-korrespondent Vsesoyuznoy akademii sel'skokho-
 zyaistvennykh nauk imeni V.I.Lenina (for Koval'skiy).
2. Deystvitel'nyy chlen AMN SSSR (for Zhukov-Verezhnikov).
 (Biology--Philosophy)

MEDVEDEV, N.V.

Bounded solutions to a system of differential equations.

Dif. urav. 1 no. 12:1592-1596 D '65. (MIRA 18:12)

1. Omskiy pedagogicheskiy institut. Submitted March 22, 1965.

MEDVEDEV, N.V. (Omsk)

Setting up the conditions of the center. Izv. vys. ucheb. zav.,
mat. no. 6:116-122 '64. (MIRA 18,3)

MEDVEDEV, N.V. (Omsk)

Uniqueness conditions for a limiting cycle. Izv. vys. shk. fiz. mat. nauk.,
mat. no.2:99-103 '65. (MIRA 16:5)

TUTOVA, A.F.; NIKOLAYEVA, L.F.; LILYEDIN, N.Y.; DOLYTRIN, A.M.;
MOL'YEVSKIY, A.A.; GALKIN, K.I.; KOLLOVA, K.A.;
KUYLEVA, T.Ye., otv. red.; KUTOVA, L.I., red.

[Transactions and materials of scientific congresses and
conferences published abroad in 1962; an index; 1 vol. i
materialy nauchnykh kongressov i nauchnykh konferentsiy, opublikovannye
za rubezhom v 1962 godu; kazatel'. Vypusk 3. Lenin-
grad, 1964. 133 p. (M.: 17:9)

1. Akademiya nauk SSSR. Biblioteka.

L 12851 65 AFETR/ASD(a)-5/RAEM(c)/RAEM(a)/ESD(c)/ESD(t)
ACCESSION NR: AP5000436 S/0001/64/000/009/0001/0005

AUTHOR: Medvedev, O. S. (Engineer); Smirnov, B. I. (Engineer)

TITLE: Using pulse meters for troubleshooting overhead electric transmission lines B

SOURCE: Energetik, no. 9, 1964, 1-5

TOPIC TAGS: transmission line, pulse meter, electric equipment, electric wire, electric measuring device, electric measurement, pulse generator

Abstract: Pulse meters have been installed for remote determination of damage spots in electric transmission lines at 110-500 kv Moscow power substations. All 220-500 kv lines and a considerable part of the 35-110 kv lines may be checked with these meters. The action of the pulse meters is based on the phenomenon of the reflection of a pulse transmitted in the line from spots where there is a considerable change in the characteristic impedance of the line. Such spots in electric transmission lines may be: transpositions, intersections with other lines, large river

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L 12851-65

ACCESSION NR: AP5000436

crossings, sections where the vires are aligned in a manner which differs from the basic line arrangement and also various damaged spots in the line. The accuracy of pulse measurements when the signal transmitted in the line is held at a constant level depends on the high-frequency characteristics of the lines, the rate at which the pulse is propagated and the distance to the damage spot. Schematic diagrams are given for connection of the meter

to the lines and to two high frequency pulse generators. Orig. art. has: 4 figs.

ASSOCIATION: none

SUBMITTED: 00

ENCL: 00

SUB CODE: EE

NO REF SOV: 000

OTHER: 000

JPRS

Card 2/2

L 06407-67

ACC NR: AP6016138

SOURCE CODE: UR/0103/66/000/005/0117/0124

AUTHOR: Medvedev, O. V. (Moscow)

ORG: none

TITLE: On the minimization of the number of states of a sequential machine with input sequences that do not contain two identical symbols in succession

SOURCE: Avtomatika i telemekhanika, no. 5, 1966, 117-124

TOPIC TAGS: sequential machine, cybernetics, set theory

ABSTRACT: A sequential machine (S-machine) is defined as an abstract device defined by recurrence formulas which include symbols from the finite alphabets (input, output, and state), and simple functions. Conventionally, S-machines have sequences on the input from some finite or countable set L ($L \subset E$, where E is a universal set containing all possible sequences). In this work, a more specific case is examined, namely when the set L is defined by the condition that any sequence not containing two like (or identical) input symbols may appear at the input of the S-machine. A minimization algorithm for this particular case is developed; the length of the shortest experiment which recognizes the nonequivalence of states is derived. Orig. art. has: 1 figure, 4 formulas.

SUB CODE: 09 13,12/

SUBM DATE: 24Nov65/

ORIG REF: 002/

OTH REF: 003

UDC: 518.5 : 681.142

Card 1/1

MEDVEDEV, P., podpolkovnik

Radar-guided proximity-detonated missiles. Voen.znan. 36
no.7:37-38 J1 '60. (MIRA 13:7)
(Guided missiles--Guidance systems)

AVERCHUK, S., vices-admiral; MEDVEDEV, P., kapitan 1-go rango

To guide means to improve organizational work. Komm. Voenush.
S11 46 no.2:24-30 Ja '66. (MIRA 19:1)

L 36998-66 EEC(k)-2/EWT(d)/EWT(1)/FSS-2 TT/GW/AST/JT

ACC NR: AP6019721

SOURCE CODE: UR/0209/66/000/006/0066/0069

AUTHOR: Medvedev, P. (Colonel)

ORG: none

TITLE: Space communications systems 6

SOURCE: Aviatsiya i kosmonavtika, no. 6, 1966, 66-69

TOPIC TAGS: ^{COMMUNICATION SATELLITE} space communication, active communication satellite, satellite communication system, global communication, aerospace communication, ground support equipment / Molniya-1 communication satellite

ABSTRACT: There are four basic kinds of space communications systems: ground-to-space, space-to-space, ground-to-ground, and global communication systems. Basic features of each are considered with particular reference to communication satellites and global systems of communication. Radio frequencies in the 100- to 10,000-cps (or wavelength from 3 m to 3 cm) range are recommended; even better quality of transmission can be obtained in the 1000-10,000-cps communications "window." In considering global systems which would provide worldwide communications by means of relay satellites, preference is given to a three-satellite arrangement, i.e., three active stationary relay satellites launched

L 36998-66

ACC NR: AP6019721

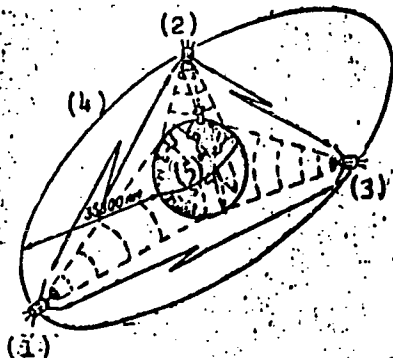


Fig. 1. Global communication system

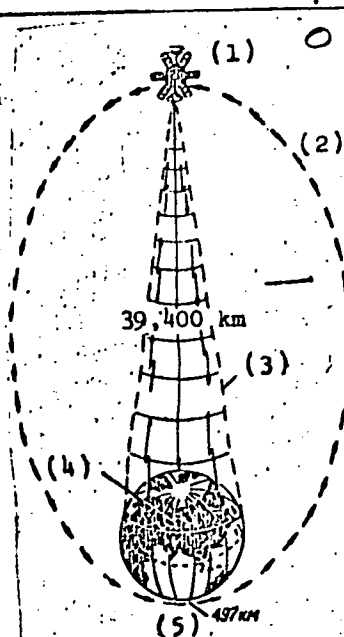
- 1 - Artificial Earth Satellite-1; 2 - AES-2; 3 - AES-3;
- 4 - circular orbit;
- 5 - equator.

into a circular orbit 35,800 km above the equator (see Fig. 1). Soviet experience with communication satellites is discussed. It is said that

2/3

Fig. 2. Communication by means of Molniya-1 satellite

- 1 - Molniya-1 satellite;
- 2 - elliptic orbit;
- 3 - conical space-to-ground radiobeam;
- 4 - zone of radio communication;
- 5 - perigee 497 km.



L 36998-66

ACC NR: AP6019721

the USSR had launched three Molniya-1 type communication satellites¹² into high elliptic orbit (see Fig. 2). These satellites provided nine hours of continuous communications for the entire territory of the USSR during the first orbit, and three hours between the European USSR and North and Central America during the second orbit. The satellite was equipped with a relay for transmitting radio and TV programs, command and control systems, an orientation system, and orbit-correcting equipment, and solar batteries and chemical sources provided the electric power. The onboard relay equipment of the Molniya-1 is controlled from the ground. On command from the ground it transmits one TV program or is switched to multichannel two-way telephone, telephoto and telegraphic communications. Ground stations have special antennas, powerful transmitters, and highly sensitive receiving equipment, as well as special equipment for increasing the density of multichannel telephone service. The satellite is equipped with a highly directional antenna, and its operation has good technical qualities. Soviet experts consider the Molniya-1 type satellite, with its ultralong-range communications capability, a prototype of a future worldwide comprehensive communications system. [SA]

SUB CODE: 22,17,

09/ SUBM DATE: none/

ATD PRESS:

5035

Card 3/3 *48*

MEDVEDEV, P.A.

Shortening building time and lowering the cost of building large
hydroelectric power stations. Trudy MIEI no.15:169-176 '61.
(MIRA 14:12)

1. Zamestitel' glavnogo inzhenera Glavstalingradgidrostroya.
(Hydroelectric power stations)

MEDVEDEV, P.A., inzh.

Precast reinforced concrete in the construction of the Stalingrad
Hydroelectric Power Station. Energ. stroi. no.20:37-40 '61.
(MIRA 15:1)

1. Stalingradgidrostroy.
(Volga Hydroelectric Power Station (22d Congress of the CPSU)--
Precast concrete construction)

23

CA

Production of straw pulp by the Zherobov continuous process. P. A. Medvedev and I. Yu. Markov. *Tsentral. Nauch.-issledovatel'skiy Institut. Prom. Materialy* 1938. No. 28, 60-62. —All the operations involved in the production of 100% straw-pulp writing paper by the Zherobov process are described in detail. In rechecking the process the following optimum conditions were evolved. Dry straw, after shredding to 20-100 mm. and cleaning, was macerated with 4 vols. of sulfate liquor, contg. 27-30 g./l. of active alkali and 8-14% of active sulfides, at 140-170° for 2-3 hrs. The entire mass was then pumped into the digester and cooked at 180-185° and 18 atm. (working pressure) for 15-20 min. After washing and sorting, the pulp was bleached by the single-stage process with a total consumption of 5.2% Cl₂ giving 38.9% yield of bleached stock with 30-5° hardness (Sieber). It was beaten to 42-48° freeness and converted with the addition of 2% resinate size and 4% Al₂(SO₄)₃ into 70 g./sq. m. paper at a paper-machine speed of 75-80 m./min. In its mech. properties, luster and whiteness it compares favorably with the standard No. 1 writing paper. The comparatively low content of screening impurities indicates a high degree of delignification obtained by this method.

Chas. Blanc

ASD-6LA METALLURGICAL LITERATURE CLASSIFICATION

FROM SYNDICATE

SEARCHED INDEXED SERIALIZED FILED

NOV 1938

1ST AND 2ND ORDERS

PROCESSING AND PROPERTIES INDEX

23

Shredding and cleaning of cut straw. P. A. Medvedev and I. Yu. Markov. *Sovetskaya Prom. 17, No. 3, 16-18 (1969).* The procedures and quality of products of 3 Soviet mills are critically discussed and some improvements are tentatively recommended. Chas. Blanc

ASM-ISA METALLURGICAL LITERATURE CLASSIFICATION

1ST AND 2ND ORDERS

PROCESSING AND PROPERTIES INDEX

23

LET AND 2ND ORDER										3RD AND 4TH ORDER									
PROCESSED AND PROPERTIES INDEX																			
CA Regeneration of liquors at the "Gerol Truda" plant P. A. Medvedev. <i>Rumashkaya Prem.</i> 17, No. 8, 43-6 (1939); <i>Chem. Zvezd.</i> 1940, 1, 1881-2.—A report is given of the method of operation used in the plant, where only 30-40% of the liquors is regenerated. The individual causes of the low recovery are discussed and suggestions are made for their elimination as well as other means for increasing the output of washing, evap. and furnace equipment M. G. Moser																			
ASAC-SLA METALLURGICAL LITERATURE CLASSIFICATION										1000 1000000 1000 1000000									
1000 1000000 1000 1000000										1000 1000000 1000 1000000									

MEDVEDEV, P. A.

Medvedev, P. A. - "Derivation of sulfate pulp from Carpathian firs and spruces," Materialy Tsentr. nauch.-issled. in-ta bumazh. prom-sti, Issue 37, 1948, p. 37-81 -- Bibliog: 15 items

So: U-3566, 15 March 53, (Letopis 'Zhurnal 'nykh Statey, No. 13, 1949)

MEDVEDEV, P.A.

Effect of the porousness of basalt on the basic characteristic
of rollers. Bum.prom.29 no.9:9-11 S '54. (MLRA 7:11)

1. Ukrainskiy filial Tsentral'nogo nauchno-issledovatel'skogo
instituta bumagi.
(Papermaking machinery)

MEDVEDEV, P.A.

Continuous cooking of semicellulose in a tubular apparatus. Bum.prom.
31 no.9:11-14 S '56. (MLBA 9:11)

1. Ukrainskiy nauchno-issledovatel'skiy institut bumagi.
(Woodpulp industry)

MEDVEDEV, P.A.

CZECHOSLOVAKIA/Chemical Technology: Chemical Products and K-5
Their Applications. Cellulose and Cellulose Products.
Paper.

Abs Jour: Ref. Zhur-Khimiya, No 1, 1958, 3275.

Author : Medvedev P.A.

Inst : _____

Title : Continuous Wood Hemicellulose Pulping in Tubular Equipment.

Orig Pub: Papir a celuloza, 1957, 12, No 1, 15-18

Abstract: See translation in RZhKhim, 1957, 13662.

Card : 1/1

MEDVEDEV, P.A.

Virgin soil straw is a valuable raw material. Bum.prom. 36 no.1:15-17
Ja '61. (MIRA 14:3)

1. Ukrainskiy nauchno-issledovatel'skiy institut tsellyuloznoy i
bumazhnoy promyshlennosti.
(Straw) (Woodpulp)

MEDVEDEV, P.A.

Representation of zero by a cubic form in the field of p -adic numbers. Usp. mat. nauk 19 no.6:187-190 N-D '64 (MIRA 18:2)

ACC NR: AP6026572

SOURCE CODE: UR/0115/66/000/007/0078/0001

AUTHOR: Levinzon, D. I.; Medvedev, P. D.; Spektor, S. A.

ORG: none

TITLE: Automatic device for measuring resistivity of semiconductor ingots by the 4-probe method

SOURCE: Izmeritel'naya tekhnika, no. 7, 1966, 78-81

TOPIC TAGS: semiconducting material, semiconductor research, *physics laboratory instrument, electronic test equipment, resistivity*
 ABSTRACT: The measuring 4-probe head continuously rolls over the surface of an ingot. Each probe consists of a 0.08-mm thick steel disk; the spacing between the disks is 1.30 ± 0.01 mm. A 2-transistor current stabilizer ensures a constant value of 0.816 ma at all times; the resistivity is measured by the conventional compensation method. The resistivity scale spans used are: 0--500, 0--1500, 0--4500, and 0--7500 ohms.m; a principal circuit is shown. Some results of automatic measurements made with the above device were compared with the results obtained from a conventional tungsten-needle 4-probe head-operated device; the difference was found to be within 1--2%. It is claimed that the automatic method has generally a lower error and a higher resolution than the manual method. Orig. art. has: 2 figures, 2 formulas, and 2 tables. [03]

SUB CODE: 09 / SUBM DATE: none / ORIG REF: 002 / OTH REF: 001

UDC: 621.317.83:621.315.592

Card 1/1

1. Planting

S.C. 4.

Rubber content of North American species of *Apocynum* and some others which affect rubber accumulation. P. V. Matveev (Vest. Soc. Rast., 1940, No. 8, 101-8; Hort. Abs., 1940, 19, 181).—
In Russian. The American *A. cannabinum* and *A. hypericifolium* and the Middle Eastern *A. venetum* were grown near Leningrad and also in the region of Krasnodar. It was found that the hot dry conditions of the south enabled the plants of all the species to accumulate far more rubber than did northern conditions. The rubber content increased from about 1% at the end of the first season to about 6% in the second and following seasons. The American species yielded a rubber which included the higher proportion of resin, but was produced in larger amount because the plants were more leafy than those of the Asiatic species. Most of the rubber is formed in the parenchyma of the leaves, where it is related to the photosynthetic process. Only a little rubber is formed in the latex vessels of the leaves, stems and roots. 12

1946

Exp. 7. *Planting*

Rubber formation is affected by geographical factor. P. F. MEDVEDEV (Compt. Rend. Acad. Sci. U.S.S.R., 1945, 48, 295-9; Brit. Abstr., 1946, A III, 940).—Rubber-bearing plants of the temperate zone are divided into two classes: those which produce rubber in the leaves (*Asclepias*, *Solidago*, *Perithium*, *Apocynum*) and which accumulate it, rubber when the plants are grown in northern localities, owing to the smaller assimilation rate, and those which form rubber in the root (*Kuh-saghis*, *brin-saghis*, and *tau-saghis*) and do not differ markedly in rubber content when grown at different latitudes, since the rubber is formed in the laticiferous vessels and not in assimilating tissues. 122

1444

S.C.L

1. Planting.

Result of introducing American species of
Apocynum. P. P. MEDVEDOV (Vest. Soc. Rast.,
No. 3, 107 18; Hort. Abs., 1944, 44, 141).

In Russian. Three North American species of
Apocynum have been grown in Russia and com-
pared with two Asiatic species. The American
species were hardier, more drought resistant, and
more adaptable to different soils than were the
Asiatic species. They were also more leafy and as
rubber and resins are contained in the leaves (8 to
9% on the dry weight) this is an important
advantage. 13

1946

1. Planting

S.C.L.

Biological rôle of rubber in the life of the plant.
P. F. MURPHY (Agronomy, U.S.N.H., 1947,
No. 1, 81-8; Rev. Gen. Caut., Doc. Anal., 1948,
88, 89).—Rubber takes part in metabolism, and
increases the resistance of the plant to frost, drought,
and other unfavourable conditions. Using these
facts, the author was able, by selection of forms of
krin-ephis resistant to cold, to obtain a variety
containing 8.4% of rubber as against 6.5% in the
initial forms. 1288.72

1948

S.C.L.

1. Planting

Geographical factors in rubber production. F.
F. MEDVEDOV (Proc. Lenin Acad. Sci., U.S.S.R.,
1947, No. 4, 37; Rev. Gen. Caut., Doc. Anal.,
1948, 25, 37). -There are two categories of rubber
plants in temperate regions; (i) those which have
rubber and a large proportion of resin in their
leave, the rubber content depending on the effect
of the climate on the assimilation functions of the
leaves; and (ii) plants with rubber and no resin
in the roots, which depend less on the climate. 12

1948

MEDVEDEV, I.F.

Medvedev, I.F. " 'Sida' a new tying and binding material,"
Vinodeliye i vinogradarstvo SSSR, 1949, No 6, p. 13-16

SC: U-5241, 17 December 1943, (Letopis 'zhurnal 'nykh Statey, No. 26, 1949).

RA

V. Plantin

• 879. Different responses of kok-saghyz and krym-saghyz to soil acidity. J. F. MEDVEDOV. *Doklady Akad. Nauk S.S.S.R.*, 1960, 74 785-8; *Hort. Abs.*, 1961, 21 631. An acid soil inhibits the growth and development of kok-saghyz and reduces the quantity of leaves and roots; young plants perish and surviving plants have a low yield. Krym-saghyz is more resistant to soil acidity and so can be grown in soils unfavourable for kok-saghyz (pH 5.0-6.0). 1228.32

1952

30

CA

The dependence of rubber content on the age of the plant. P. P. Melvylev. Doklady Akad. Nauk S.S.S.R. 79, 341-344 (1961). Studies on kok-saghyz (I), krym-saghyz (II), and tau-saghyz (III) were made. Under conditions existing in the steppe region of Krasnodar region II is the most durable plant of the three. In I and III the rubber content gradually rises with age, reaching 10% in III after 5 years and 15.8% in I after 4 years (when plants began to die). II gave a slower rise of rubber content reaching but 0.1% in 5 years (all figures based on root dry wt.). Among leaf rubber bearers a study of *Asclepias incarnata*, *A. physaloides*, *A. purpurascens*, *A. syriaca*, *A. tuberosa*, *A. grandiflora*, and *A. speciosa* there is a moderate decline of rubber content in the leaves after a max. reached on the 2nd-3rd year of growth. The max. figures ranged from about 4% to about 5%. *Apocynum* family plants have moderate amounts of rubber in their leaves which also displays a max. on 2-4 years' growth. The *Solidago* family plants show a similar picture. G. M. Kosolapoff

1. MEDVEDEV. P. F.
2. USSR (600)
4. Mallow
7. Mallow, a new ensilage crop. Korm. baza 3 no. 10, '52.

9. Monthly List of Russian Accessions, Library of Congress, January 1953. Unclassified.

1. MEDVEDEV, P. F.

2. USSR (600)

4. Sida

7. Extension of sida cultivation toward the north. Dost. sel'khoz. No. 4, 1952.

9. Monthly List of Russian Accessions, Library of Congress, January 1953. Unclassified.

CA

11-D

Effect of heteroauxin on the growth of superterranean mass and yield of potato. P. F. Medvedev. *Doklady Akad. Nauk. S.S.S.R.* 84, 365 (1952). Soaking the tubers 24 hrs. before planting in 0.005% heteroauxin soln. gave larger no. of runners per plant and a slight increase of total plant mass, with some varieties giving higher, others no change, in the yield. If individual cut-out eyes were soaked for 3 hrs., a slight increase (12-18%) in the no. of runners and plant height was noted, and a 49% increase in the av. wt. of the tubers. Soaking in the above soln. of green sprouts cut at 12-15 cm. height from growing plants also improved the growth and the yield by some 73%. If the plants are sprayed with the soln. during the budding and flowering stage for 3 days a very significant increase of plant size (up to 93%) and yield of potatoes (up to 130%) is noted; the Lerch variety is most receptive. (J. M. K.)

1. MEDVEDEV, P. F.

2. USSR (600)

4. Mallow

7. Mallow is a valuable feed crop, Sots. zhiv., 15, no. 5, 1953.

9. Monthly List of Russian Accessions, Library of Congress, April 1953, Uncl.

Country : USSR
Category: Cultivated Plants. Grains.

14

Abs Jour: RZhBiol., No 11, 1958, No 48870

Author : Medvedev, P.F.
Inst : Leningrad Selection Station
Title : Development of the Root System in Corn on Different
Types of Podzolic Soil.

Orig Pub: Kukuruz, 1956, No 9, 28-29

Abstract: In the work of the Leningrad Selection Station, it was found that on light sandy loam soil, the main mass of the roots is grouped chiefly at a depth of up to 37 cm, and in individual cases it penetrated to 80 cm. On medium compact loam soil, the main mass of the roots was in the tillable horizon (to 20-21 cm), and on loam soil with a packed subsoil

Card : 1/2

M-27

COUNTRY : USSR
CATEGORY : Cultivated Plants. Cereals M
ABS. JOUR. : RZhBiol., No. 23 1958, No. 104673
AUTHOR : Medvedev, P. E.
INST. : Leningrad Breeding Station
TITLE : On Sowing Dates for Buckwheat in Leningrad Oblast'.
ORIG. PUB. : Zemledeliye, 1957, No. 2, 80
ABSTRACT : Experiments on the determination of optimum dates for buckwheat sowing have been conducted at Leningrad Breeding Station for a number of years. Sowing was done in the last 10 days of May and in the first ten days of June. With the earlier sowing, the yield of buckwheat was higher than with the later one, especially if supplementary dressing with nutrients was used. In the plants of the earlier sowing period, a larger number of seeds formed, and their absolute weight proved to be higher than in the plants of the later sowing. -- G. N. Chernov

Card:1/1

41

BREZHNEV, D.D., akademik, prof.; GAZENBUSH, V.L.; KAMERAZ, A.Ya.;
MEDVEDEV, P.P.; MIZGIREVA, O.F.; FILOV, A.I.; ZHUKOVSKIY, P.M.,
akademik, prof., obshchiy red.; LEONT'YEV, V.M., red.; CHUHA-
YEVA, Z.V., tekhn.red.

[The flora of cultivated plants of the U.S.S.R.] Kul'turnaya
flora SSSR. Moskva, Gos.izd-vo sel'khoz.lit-ry. Vol.20.
[Vegetable plants of the nightshade family: tomato, eggplant,
black nightshade, melon pear, pepper (Capsicum), ground cherry,
mandragora] Ovoshchnye paslenovye; tomat, baklazhan, chernyi
paslen, dynnyaia grusha, perets, fizalis, mandragora. 1958.
531 p. (MIRA 13:3)

1. Vsesoyuznaya akademiya sel'skokhozyaystvennykh nauk imeni V.I.
Lenina (for Brezhnev, Zhukovskiy).
(Nightshade) (Vegetables)

SOKOLOV, V.S.; SANDINA, I.B.; KOLPIKOV, V.A.; ~~MEDVEDEV, P.F.~~

Experiment in raising *Heracleum Sosnowskyi* Mand. as a new silage
plant in Leningrad Province. Trudy Bot. inst. Ser. 6:244-261
'58. (MIRA 11:10)

(Leningrad Province--Cow parsnip)

1118
SUBJECT : Cultivated Plants. Fodder Grasses and Roots.
ABST. SOURCE : Zemledeliya, No. 5, 1958, No. 10558
AUTHOR : Medvedev, P. F.
ISSUE : --
TITLE : Selecting Crops for Stubble Planting in the
North Western Oblasts
ORIG. PUB.: Zemledeliya, 1958, No.8, 76-78
ABST. CT : No abstract

END: 1/1

MEDVEDEV, P.F.

Economic and biological features of the dioecious plant *Urtica*
dioica L. [with summary in English]. Bot.zhur. 43 no.12:
1704-1707 D '58. (MIRA 11:12)

1. Severo-zapadnyy nauchno-issledovatel'skiy institut sel'skogo
khozyaystva, Leningrad.
(Nettles) (Plants, Sex in)

MEDVEDEV, P.F.

New silage plants for the northwestern zone of the U.S.S.R.
Trudy Bot.inst.Ser.6 no.7:254-258 '59. (MIRA 13:4)

1. Severo-zapadnyy nauchno-issledovatel'skiy institut sel'skogo
khozyaystva, Suyda.
(Russia, Northwestern--Forage plants)

MEDVEDEV, P.F., kand.sel'skokhoz.nauk

Selecting stubble crops for northwestern provinces. Zemledelie 6
no.8:76-78 Ag '59. (MIRA 12:11)

(Field crops)

MEDVEDEV, P.F. , kand.sel'skokhoz.nauk

Special aspects in cultivating various winter rye varieties in
northwestern provinces. Zemledelie ? no.7:71-73 J1 '59.
(MIRA 12:9)

1. Severo-Zapadnyy nauchno-issledovatel'skiy institut sel'skogo
khozyaystva.

(Rye--Varieties)

MEDVEDEV, P.F.

The life form of Medicago lupulina L. Bot.zhur. 44 no.10:
1496-1498 0 '59. (MIRA 13:4)

1. Severo-zapadnyy nauchno-issledovatel'skiy institut sel'-
skogo khozyaystva, Leningrad.
(Alfalfa)

MEDVEDEV, P.F.

Biology of flowering and fruiting in *Taraxacum hybernum* Stev. Bot.
zhur. 46 no.6:890-892 Je '61. (MIRA 14:6)

1. Otdel seleksii Severo-zapadnogo nauchno-issledovatel'skogo
instituta sel'skogo khozyaystva, stantsiya Suyda Leningradskoy
oblasti.

(Dandelions)

SOKOLOV, V.S., doktor biolog.nauk; MEDVEDEV, P.F., kand.sel'skokhoz.nauk

Seminar-conference on new ensilage crops held in Leningrad. Vest.
AN SSSR 33 no.6:121-122 Je '63. (MIRA 16:7)
(Ensilage)

MEDVEDEV, Polikarp Fedorovich; BORODKINA, L.A., red.; SAYTANIDI,
L.D., tekhn. red.

[Growing Jerusalem artichoke in the non-Chernozem belt]
Vozdelyvanie zemlianoi grushi v nechernozemnoi polose. Mo-
skva, Izd-vo M-va sel'.khoz.RSFSR, 1963. 51 p.
(MIRA 16:7)

(Jerusalem artichoke)

SOKOLOV, V.S.; MEDVEDEV, P.F.

Seminar on new silage forage plants. Bot. zhur. 48 no.9:
1404-1406 S '63. (MIRA 16:11)

1. Botanicheskiy institut imeni V.L. Komarova AN SSSR,
Leningrad.

SOKOLOV, V.S., doktor biolog. nauk; MEDVEDEV, P.F., kand. sel'skokhoz. nauk

Promising silage plants. Zemledelie 25 no.12:43-47 D '63.
(MIRA 17:4)

MEDVEDEV, Polikarp Fedorovich; PEN'KOVA, G.A., red.

[Accelerated multiplication of the seeds of meadow and
pasture grasses] Uskorennoe razmnnozhenie semian lugo-
pastbishchnykh trav. Leningrad, Izd-vo "Kolos," 1964.
75 p. (MIRA 17:5)

SOKOLOV, V.S.; MEDVEDEV, P.F.

New silage plants and the prospects of their introduction
into agricultural practice. Biul. Glav. bot. sada no.53:
95-99 '64. (MIRA 17:6)

1. Botanicheskiy institut imeni V.L. Komarova Akademii
nauk SSSR.

MEDVEDEV, P.F.

Brief results of the introduction of feed types of mallow in
the U.S.S.R. Rast. res. 1 no.1:109-115 '65. (MIRA 18:6)

1. Severo zapadnyy nauchno-issledovatel'skiy sel'skokhozyaystvennyy
institut, Leningrad.

MEDVEDEV, P.F.

Significance of N.I.Valilov's law of homological series for the
introduction of useful plants. Rast.res. 1 no.3:336-339 '65.

(MIRA 18:10)

1. Severo-Zapadnyy nauchno-issledovatel'skiy sel'skokhozyaystvennyy
institut, Leningrad.

MEDVEDEV, P.I.; Prinimali uchastiye: BABENKO, Ye.; BORODENKO, V.I.

Determining the electrokinetic potential of the particles of
nuclear sols. Lakokras.mat.i ikh prim. no.6:50-52 '62.

(MIRA 16:1)

(Paint materials--Electric properties)

MEDVEDEV, P.I.; BALEZIN, S.A., professor, redaktor; OZEROV, V.H.,
redaktor; MOISEYENKO, D.G., tekhnicheskii redaktor

[Physical and colloid chemistry; brief course] Fizicheskaya i
kolloidnaya khimiya; kratkii kurs. Pod red. S.A.Balezina. Moskva,
Gos. izd-vo sel'skokhoz. lit-ry, 1954. 271 p. (MLRA 8:1)
(Colloids) (Chemistry, Physical and theoretical)

L 11426-67 EXT(m)--- IJP(c)--- SOURCE CODE: UR/0057/66/036/009/1523/1535
ACC NR: AP6031256

AUTHOR: Budker, G.I.; Medvedev, P.I.; Mostovoy, Yu.A.; Nezhevenko, O.A.; Nelidov, A.B.;
Ostreyko, G.N.; Panasyuk, V.S.; Samoylov, I.M.

ORG: none

TITLE: The BSB iron-free single turn synchrotron

SOURCE: Zhurnal tekhnicheskoy fiziki, v.36, no. 9, 1966, 1523-1535

TOPIC TAGS: electron accelerator, synchrotron

ABSTRACT: This paper is concerned with the type BSB iron-free single turn synchrotron developed at the IYAF CO AN SSSR for injection of up to 180 MeV electrons into a storage ring. A general description of the machine has been given elsewhere by Ye.A. Abramyan and 22 other authors (Transactions of the International Conference on Accelerators, Dubna, 1963, p.1065, Atomizdat, M., 1964). In the present paper certain features of the accelerator are described in somewhat more detail, including the magnet, the magnet power supply, and the injector, and the adjustment of the machine is discussed. The magnet winding consists of two concentric duralumin rings between which the beam circulates. The outer ring is capable of withstanding a magnetic pressure of 50 atm, and the geometry is such that the inner ring is in equilibrium under the magnetic forces, being subjected only to a hydrostatic pressure. The magnet is powered by a 0.045 F capacitor bank charged to 10 kV. The maximum magnet current is about

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10^6 A, corresponding to an electron energy of 180 MeV. There are two auxiliary capacitor banks which are discharged at selected phases of the cycle to control the time dependence of the magnetic field. Injection of 600 kV electrons is accomplished during a single revolution of the captured electrons. The discharge of the auxiliary and main capacitor banks is so timed that the field is approximately constant during injection. The rf accelerating voltage is frequency modulated from 103.5 to 116 MHz, and is applied to the beam with the aid of a single resonator with a Q of 200. Some difficulties were encountered in the adjustment of the machine, but none that could not be overcome. It was possible to inject about 1.2 A of 600 kV electrons into the approximately constant field, and to accelerate some 20 % of the injected electrons. The maximum beam current was found to be limited by longitudinal space charge effects (the negative mass effect), rather than by transverse space charge effects. It is suggested that higher currents might be achieved with a strong focusing iron-iron pulsed machine. The authors thank A.A.Naumov for his interest and discussion, A.A. Kornev for organizing the fabrication of the main parts of the accelerator, and A.I.Kordukhin, A.A.Ilyshin, and P.G.Marchenkov for participating in the development of certain parts of the accelerator. Orig. art. has: 3 formulas and 6 figures.

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